



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,893	04/20/2004	Ronald J. Yaeger	P-B199-CIP	5851

7590
Mr. Ronald J. Yaeger
4201 Tomberra Way
Dallas, TX 75220

EXAMINER

COLE, ELIZABETH M

ART UNIT	PAPER NUMBER
----------	--------------

1794

MAIL DATE	DELIVERY MODE
-----------	---------------

04/21/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/828,893	Applicant(s) YAEGER ET AL.	
	Examiner Elizabeth M. Cole	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/20/08 has been entered.

2. Claims 1-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed does not provide support for the limitation that the continuous phase comprises amorphous polymers, that the continuous phase comprises one or more non-chlorinated cationic polymer or that the cationic polymers comprise at least one cationic functional group or wherein the continuous phase has an overall cationic charge. The specification does not state whether the polymers are amorphous, crystalline or semi crystalline, does not contain the negative limitation regarding non-chlorinated cationic polymers, does not refer to cationic functional groups or to the polymer being a cationic polymer. The specification does state that preferred polymers comprise cationic groups, (paragraph 061). However, this is not the same as having a cationic charged or having cationic functional groups. .

Art Unit: 1794

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Polovina, U.S. Patent No. 3,798,057 as further evidenced by "Raman scattering in amorphous and crystalline materials: a study of epoxy resin and DGEBA" in view of . Polovina discloses a fibrous web which is impregnated with a composition comprising a polyepoxy compound. See col. 1, lines 61- col. 2, line 3; col. 3, lines 6-26. The impregnating composition corresponds to the claimed continuous phase. The impregnated fibrous web is useful as a water contact body for evaporative coolers. The impregnating composition can further comprise fillers which correspond to the claimed discontinuous phase in an amount of up to 50 percent. See col. 3, lines 27-49. The finished product comprises 10-30 percent of the impregnating composition by weight of the finished product. See col. 4, lines 44-46. Polovina differs from the claimed invention because it does not particularly disclose the claimed non polar solubility parameter, the polar solubility parameter, the hydrogen bond solubility parameter, the surface tension, interfacial tension or that the continuous phase is cationic. However, since Polovina discloses the same materials which are used for the same purpose, it is reasonable to presume that the materials of Polovina would meet the claimed property limitations. When the reference discloses all the limitations of a claim except a property or function, and the examiner cannot determine whether or not the reference inherently

Art Unit: 1794

possesses properties which anticipate or render obvious the claimed invention but has basis for shifting the burden of proof to applicant as in *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980). See MPEP § § 2112- 2112.02. Polovina teaches that the impregnating compound can comprise an epoxy resin which is a diglycidyl ether of bisphenol A, but does not specifically disclose that this material is amorphous. “Raman Scattering” establishes that diglycidyl ethers of bisphenol A can be amorphous polymers. See entire document. Therefore, since Polovina teaches that the impregnating composition comprises a diglycidyl ether of bisphenol A as the epoxy compound which is used in the impregnating compound, and “Raman Scattering” teaches that diglycidyl ethers of bisphenol A can be amorphous polymers, it would have been obvious to have selected an amorphous diglycidyl ether of bisphenol A as the epoxy resin in Polovina, since “Raman Scattering” establishes that diglycidyl ethers of bisphenol A which are amorphous polymers were known and therefore, since Polovina teaches diglycidyl ethers of bisphenol A generally, the choice of an amorphous diglycidyl ether of bisphenol A would have been obvious at the time the invention was made.

5. With regard to the newly added limitation that Polovina is impregnated with a continuous phase “comprising one or more amorphous non-chlorinated cationic polymers” Polovina teaches epoxy resin compounds such as diglycidyl ether of bisphenol A but does not teach that the resin has a cationic charge. Nishiguchi et al teaches cationic coating composition comprising a modified epoxy resin. See col. 2 lines 18-65. The epoxy resin is modified by reacting the epoxy resin with a polyol

compound in order to form a cationic coating. The coating has excellent corrosion resistance and adhesion properties. Therefore, it would have been obvious to have employed a cationic epoxy resin as taught by Nishiguchi as the epoxy resin in Polovina, with the expectation that the resin would have good corrosion resistance and excellent adhesion.

6. Applicant's arguments filed 2/20/08 have been fully considered but they are not persuasive. Applicant argues that the skill artisan would readily know that given the physical parameters and characteristics of the polymers that the polymers are amorphous. However, Applicant does not provide any reasoning in support of this conclusion. The specification does not state whether the polymers are amorphous, crystalline or semi-crystalline. While Applicant states that the skilled artisan would know that the polymers described in the specification are amorphous, since Applicant does not explain why this is the case, the rejection is maintained.

7. Additionally, new 112 1st paragraph rejections are set forth above. The specification does not provide support for the negative limitation of "non-chlorinated" as claimed. Any negative limitation or exclusionary proviso must have basis in the original disclosure. The mere absence of a positive recitation is not basis for an exclusion. Any claim containing a negative limitation which does not have basis in the original disclosure should be rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. See *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983), *aff'd mem.*, 783 F.2d453 (Fed. Cir. 1984). Further, the specification does

Art Unit: 1794

not state or describe that the polymers have a cationic charge or cationic functional groups.

8. Applicant argues that since Polovina teaches including chlorinated polymers that the instant invention is distinct from what is taught by Polovina. However, the instant claims do not preclude the presence of chlorinated polymers. Rather, the claims recite that the fibrous web is impregnated with one or more non chlorinated cationic polymers. The material of Polovina meets this limitation since the web is impregnated with the epoxy resin. The claims use open language and do not preclude the presence of chlorinated resins, but rather positively recite that one ore more of the resins is non-chlorinated. Polovina therefore meets this limitation. With regard to the newly added limitations regarding the polymer having a cationic charge and cationic functional groups, as noted above, these limitations are new matter. However, since Polovina does not teach this limitation, the 102 rejection has been withdrawn and a new rejection addressing these limitations is set forth above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

The examiner's supervisor Rena Dye may be reached at (571) 272-3186.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/828,893
Art Unit: 1794

Page 7

The fax number for all official faxes is (571) 273-8300.

/Elizabeth M. Cole/
Primary Examiner, Art Unit 1794

e.m.c